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Untitled7.ipynb ☆

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Files

- sample_data
- telco_churn.csv

+ Code + Text

```
import pandas as pd
from sklearn.preprocessing import StandardScaler
from sklearn.cluster import KMeans
import matplotlib.pyplot as plt
import seaborn as sns
data=pd.read_csv('telco_churn.csv')
data['Contract']=data['Contract'].map({'Month-to-month': 0,'One year':1,'Two year': 2 })
data['Churn'] = data['Churn'].map ({'No': 0,'Yes':1})
features=data[['tenure','MonthlyCharges','Contract']]
scaler=StandardScaler()
scaled_features=scaler.fit_transform(features)
KMeans=KMeans(n_clusters=4,random_state=42)
data['Segment']= KMeans.fit_predict(scaled_features)
churn_rates=data.groupby('Segment')['Churn'].mean()
print(churn_rates)
plt.figure(figsize=(12,6))
sns.scatterplot(data=data,x='tenure',y='MonthlyCharges',hue='Segment',palette='viridis')
plt.title('CustomerSegments based on Tenure and MonthlyCharges')
plt.show()
plt.figure(figsize=(12,6))
sns.barplot(x=churn_rates.index,y=churn_rates.values,palette='viridis')
plt.title('Churn Rates across Customer Segment')
plt.xlabel('Segment')
plt.ylabel('Churn Rate')
plt.show()
```

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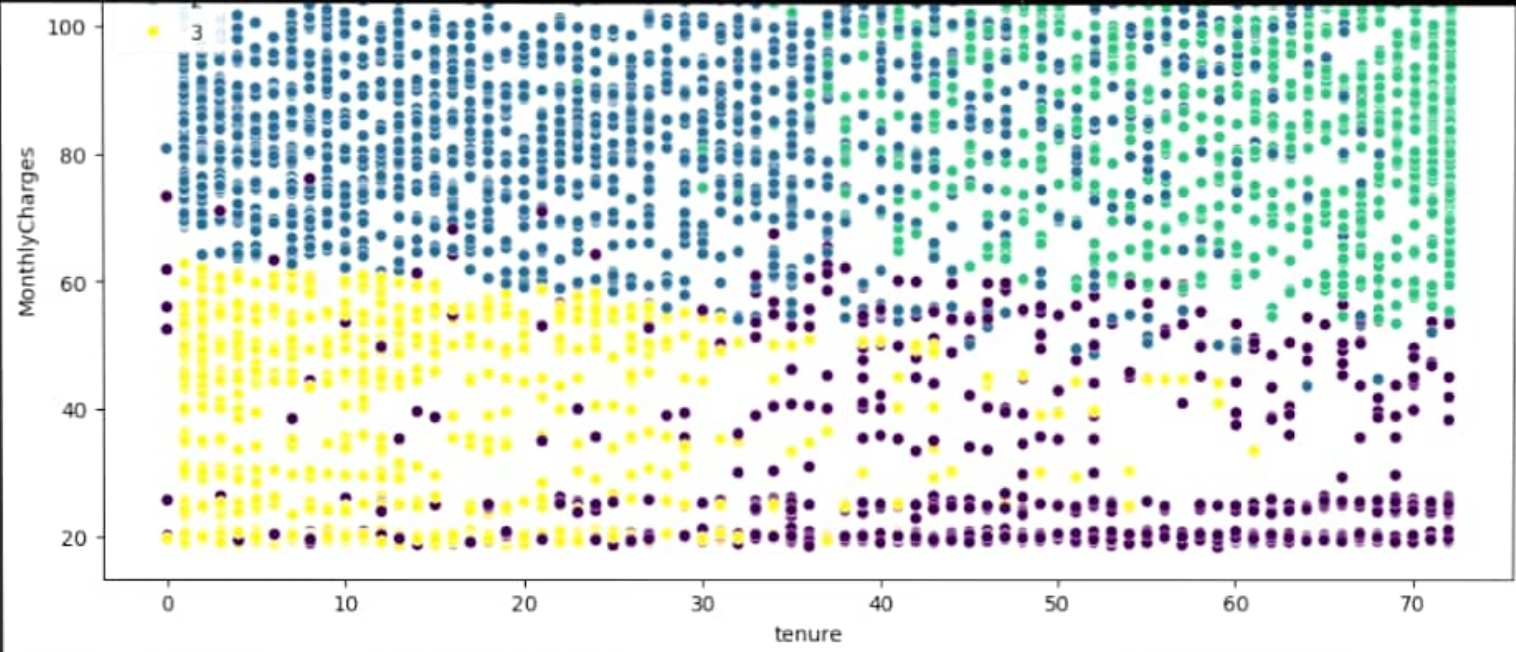
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plt.show()

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A scatter plot showing the relationship between 'tenure' (x-axis, ranging from 0 to 70) and 'MonthlyCharges' (y-axis, ranging from 20 to 100). The data points are colored based on a categorical variable, likely 'churn', with colors including yellow, blue, green, and purple. The plot shows a dense distribution of points, with a slight upward trend in MonthlyCharges as tenure increases, though there is significant variance.

MonthlyCharges

tenure

<ipython-input-4-1c3417f89656>:21: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `x` variable to `hue`

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tenure

```
<ipython-input-1-1c3417f89656>:21: FutureWarning:  
Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `x` variable to `hue`  
sns.barplot(x=churn_rates.index,y=churn_rates.values,palette='viridis')
```

Churn Rates across Customer Segment

Customer Segment	Churn Rate
Segment 1	0.45
Segment 2	0.12
Segment 3	0.28

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Breaking news

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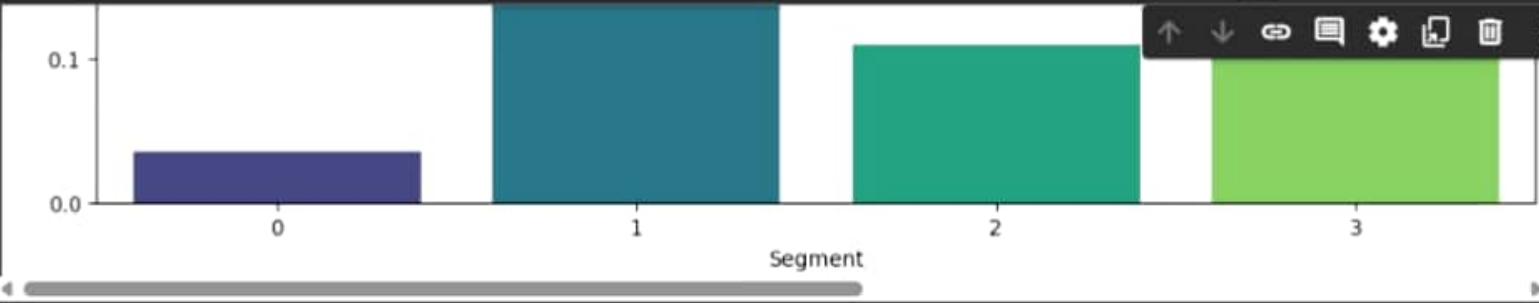
Files

sample_data

telco_churn.csv

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6s



Segment	Value
0	~0.03
1	~0.10
2	~0.08
3	~0.08

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